

(Practitioner's Docket No. PAT-01033/BC1-0064)

REMARKS

1. Rejection of claims 1-8 under 35 U.S.C. §102(b) as being anticipated by Mezger, U.S. 4,956,433, hereafter "Mezger" or "433."

Claims 1-8 stand rejected as anticipated by Mezger. Applicants and the Undersigned greatly appreciate the detailed basis of rejection but must respectfully disagree.

To anticipate a claim, a single source must contain all of the elements of the claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

This standard is not met in regards to amended independent claim 1 and the disclosures of Mezger.

Independent claim 1 has been amended to require that the at least one thiocarbamate-functional organic compound comprise the reaction product of an organic compound containing at least one isocyanate group and at least one thiol.

Mezger teaches the use of very different dithiocarbamates. The Mezger dithiocarbamates are first "...prepared from the appropriate secondary amine and carbon disulfide and then reacted to form a dithiocarbamate according to standard procedure with a corresponding organic compound with activated chlorine substituents..." '433, col. 3, lines 48-52. Mezger does not disclose the use of a thiocarbamate that is the reaction product of an isocyanate functional compound and a thiol.

Thus, Mezger fails to disclose the invention of Applicants' amended independent claim 1. In particular, Mezger fails to disclose a free-radical (co)polymerization product resulting from the polymerization of at least one olefinically unsaturated monomer in the presence of a thiocarbamate functional reaction product of an isocyanate functional organic compound and at least one thiol.

A holding of anticipation requires that there be no difference between the claimed invention and the disclosure, as viewed by a person of ordinary skill in the field

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of the invention. *Scripps Clinic & Res. Found. v. Genentech Inc.*, 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Moreover, 'it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference'. *Ex Parte Levy*, 17 U.S.P.Q.2d 1461 (Bd. Pat. App. & Int'l 1990).

Mezger cannot anticipate amended claim 1 in the absence of *any* disclosure relating to the particular thiocarbamate compounds required by Applicants.

Accordingly, reconsideration and removal of the rejection is respectfully requested as to amended claim 1 and all claims dependent thereon, i.e., claims 2-3 and 5-8.

2. **Rejection of claims 1-3 and 5-8 under 35 U.S.C. §102(b) as being anticipated by Clouet, U.S. 5,189,112, hereafter "Clouet" or "112."**

Claims 1-3 and 5-8 stand rejected as anticipated by Clouet. Applicants and the Undersigned greatly appreciate the detailed basis of rejection but must respectfully disagree.

To anticipate a claim, a single source must contain all of the elements of the claim. *HybriLoch Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1980). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

This standard is not met in regards to amended independent claim 1 and the disclosures of Clouet.

As noted by the PTO, previously presented claim 4 was not anticipated by Clouet. More particularly, it is respectfully submitted that the instant rejection of claims 1-3 and 5-8 is moot in view of the foregoing amendment to independent claim 1.

As previously discussed in Section 1 above, independent claim 1 has been amended to require that the at least one thiocarbamate-functional organic compound comprise the reaction product of an organic compound containing at least one isocyanate group and at least one thiol.

Clouet discloses the use of thiocarbamate functional polymers to make graft copolymers. *'112, Abstract* Clouet does not disclose any thiocarbamates that are the

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reaction product of an isocyanate functional compound and a thiol nor the use of any such particular thiocarbamates.

Thus, Clouet fails to disclose the invention of Applicants' amended independent claim 1. In particular, Clouet fails to disclose a free-radical (co)polymerization product resulting from the polymerization of at least one olefinically unsaturated monomer in the presence of a thiocarbamate functional reaction product of an isocyanate functional organic compound and at least one thiol.

A holding of anticipation requires that there be no difference between the claimed invention and the disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Res. Found. v. Genentech Inc., 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Moreover, 'it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference'. Ex Parte Levy, 17 U.S.P.Q.2d 1461 (Bd. Pat. App. & Int'l 1990).

Clouet cannot anticipate amended claim 1 in the absence of any disclosure relating to the particular thiocarbamate compounds required by Applicants.

Accordingly, reconsideration and removal of the rejection is respectfully requested as to amended claim 1 and all claims dependent thereon, i.e., claims 2-3 and 5-8.

3. Rejection of claims 1-9 under 35 U.S.C. §103(a) as being unpatentable over Fryling, U.S. 2,396,997, hereafter "Fryling" or "997."

Claims 1-9 stand rejected as obvious over Fryling. It is admitted that Fryling differs from the rejected claims in that polymerization in the presence of at least one thiocarbamate-functional organic compound is not disclosed in a specific embodiment. However, it is the PTO's position that page 3, left column, lines 64-75 and right column, lines 1-11, disclose the use of thiocarbamic acids, and the salts and sulfides thereof in the polymerization of unsaturated organic compounds. In particular, the PTO states:

...one would have had a reasonable expectation of thiocarbamic acid salts and sulfides performing equivalently to mercaptans and xanthogenic sulfides in the process of Fryling. Such expectation of equivalent performance would have led one of ordinary skill in the art to modify Fryling by adding a thiocarbamate functional organic compound (e.g., thiocarbamic acid salt or thiuram disulfide) to the disclosed process as a modifier of polymerization, in lieu of a mercaptan or xanthogenic sulfide.

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Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. MPEP 2143.

This standard is not met by the disclosures of Fryling. In particular, Fryling fails to provide any motivation to modify its disclosures so as to obtain the invention of amended independent claim 1. Fryling also fails to disclose all of the required claim limitations of amended independent claim 1.

For example, the disclosure of mercaptan compounds and xanthogenic acids and salts does not suggest the particular structures of Applicants' thiocarbamates resulting from the reaction of thiols and isocyanate functional compounds. Nor do the thiocarbamates disclosed on page 3 of Fryling suggest or disclose the particular structures of Applicants' thiocarbamates resulting from the reaction of thiols and isocyanate functional compounds.

In particular, it is submitted that Fryling fails to provide a *prima facie* case of obviousness. The crucial factor is what effect such obviousness of structure has upon the obviousness of the subject matter as a whole, since structural obviousness alone is not a bar under 35 U.S.C. §103 to the grant of a patent on a chemical compound.

Comr. Pats. v. Deutsche Gold-und-Silber, etc. 157 U.S.P.Q. 549 (C.A.D.C. 1968).

In this case, nothing in Fryling suggests the use of the particular thiocarbamates obtained by the reaction of the particular structures of Applicants' thiocarbamates resulting from the reaction of a thiol and an isocyanate functional compound. The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In this case, nothing but Applicants' own teachings provide that suggestion. The CAFC has stated "to imbue one

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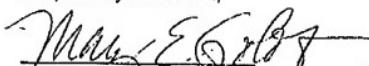
of ordinary skill in the art with knowledge of the invention in suit, when no prior art references or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. *W.L. Gore & Assocs., Inc., v. Garlock*, 220 U.S.P.Q. 303, 312-313. (Fed. Cir. 1983).

Accordingly, it is respectfully submitted that Fryling fails to provide a *prima facie* case of obviousness with regards to the inventions of amended independent claim 1, dependent claims 2-3 and 5-8, and independent claim 9. Reconsideration and removal of the rejection is respectfully requested.

CONCLUSION

Applicant(s) respectfully submit that the Application and pending claims are patentable in view of the foregoing amendments and/or remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,


Mary E. Golota
Registration No. 36,814
Cantor Colburn LLP
(248) 524-2300

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CORRESPONDENCE ADDRESS ONLY

BASI Corporation
20701 Telegraph Road
Southfield, Michigan 48034-2442
Customer No. 26922